EDITORIAL

THE FACULTY

Just as soon as you read this heading you are going to think—applesauce, or other expressions of disgust. You will probably relegate me to that genus of student who used to bring dear teacher apples or flowers, and hold his hand out behind his back for grades or favors. Or, if in the following, I get bosky (adjective derived from bolshevik) and rush criticism in where angels fear to tread, perhaps your accusation will be: fool. Well, read on.

We had an Engineering College Magazines convention here at the university. Among the matters of entertainment of the delegates, it was decided to provide an inspection trip to points of interest around Columbus. Transportation was the problem. When the hour set for the trip rolled around our business manager had a string of cars a city block long lined up. Who provided the cars? THE FACULTY.

Whenever we get a little beyond our depth in the problems that come up in connection with The Ohio State Engineer, we just naturally turn to the faculty of The College of Engineering. It is the same way with every other activity in the engineering school. The faculty is always ready and willing to co-operate. One scarcely gives it a second thought; everyone is so certain that he will have full and hearty help from his professors. At Ohio State such co-operation is taken as a matter of course.

One of the delegates from a large western university couldn't comprehend the idea that the faculty was actually helping us with our publication and the convention.

"What! Our faculty furnish cars for a student convention; our Dean write an article for our paper! Haw, Haw, Haw!"

The boy went on with some more remarks about the faculty of his university, which for the sake of charity and the use of the mails we shall not repeat.

Well, this has gone far enough. What we want to express is our sincere appreciation of our faculty, and our thanks for the help that was given us in holding the E. C. M. A. convention at The Ohio State University.

WEIGHTS AND MEASURES

Today's mail brings a ready-written editorial advocating the metric system of weights and measures. It states in very emphatic terms the wonderful advantages to be secured by the wholesale adoption of this system in the United States. The writer really becomes very enthusiastic, in fact the editorial sounds like a high school debator sounding off in his first speech.

Then there is another side to this question of weights and measures; it is stated just as enthusiastically by Samuel Russell in the Quarterly of The American Institute of Weights and Measures.

Mr. Russell says, "The metric system and the nebular hypothesis were the inventions of Pierre Laplace, the French astronomer of the period of the Paris Commune. Laplace was known for his meticulous concern with infinitesimals. He could see only through telescopes and microscopes. Of normal visualization he had none. * * * And the metric system is the sole relic of the errors of that era."

Each of these writers states his case a little too forcibly to ring true. The metric system is not an "error". It is a logical system, and it is a system that fits the need of science and calculation very well. To the scientist, C.G.S. is meat and meal, but when we talk about foisting the system wholesale on American industry, we are considering an entirely different proposition.

In the first place, an adoption of the metric system would mean that a billion dollars of machine tools and equipment would have to be scrapped—utterly wasted.

Industry would be practically paralyzed if the metric system were adopted tomorrow morning.

The case of the "human equipment" of industry is just as important as that of the machines. Workmen are trained to visualize in inches and in pounds. It would take five years of costly adjustment before the men could work efficiently in the new units.

But even if the new units were adopted, would they fit the needs of industry? The man who is designing a tractor doesn't care whether or not his unit is one-ten-millionth of the length of the arc of the meridian between equator an pole. He wants something practical. The centimeter is too short and the meter is too long for his efficient use.

Pages could be written on the faults and on the merits of the metric system but the fact remains that it can be used by those who want it. Industry is not blind. If it is a good thing we will gradually change to its use in our factories. The scientist sees its advantages for him and does use it. The most sane and sensible way seems to keep hands off in the matter of legislation, and let the country work out its own salvation.

According to Clinton W. Gilbert, correspondent of the New York *Evening Post,* one objection to the presidential candidacy of Herbert Hoover has been voiced as follows: "We have never had an engineer in the Presidency, and I doubt whether we ought to have an engineer in the Presidency. An engineer is experimental. An engineer always wants to do something."

Is this a slap in the face or is it a compliment? A slap in the face because it infers an inability, or is it a compliment to be deemed undesirable by those who are afraid a president will "do something".

PARTICIPATION

Frankly this is not my own thought. I got it from Professor Getzloe of the School of Journalism, who spoke at the Engineering College Magazines Associated banquet. Getzloe said that we engineers were too modest, too retiring and did not join in exercising the activities and traditions of the campus. He said we let the Arts students and the Commerce students and the Law students uphold our worthy traditions, whilst we engineers sat back and did not even applaud.

Professor Getzloe hit the nail square on the head with a sledge hammer. We engineers take ourselves too seriously. We think that Engineering is the alpha and omega of the world. We get so wrapped up in our technical societies that we cannot understand the attiture of an Arts student thinking in terms of Bucket and Dipper, or Glee Club or University Orchestra.

Perhaps we study too much. If we studied as hard at an I. C. S. school, we would get just as much technical knowledge as we do here, but, and it is an awfully big "but" gentlemen, we wouldn't get what we can and should get here, namely, social contact.

What do we go to a university for? To get an engineering education, true. But that's "only the half of it dearie," as the comedians used to say. A one-sided highly educated engineer is a mistake in this world. The word "educated" should not be used in his connection. He is not educated until he has many sides. A one-sided figure has area without breadth, and more and more we want our engineers to have breadth. Don't imagine I want you to swing to the other extreme and "Rah, Rah for everything on the campus. Professor Getzloe does not admire the "Rah, Rah" stuff any more than some of us Engineers do. The big thing is to swing away from some of our aloofness. Get interested in activities other than engineering—get interestd—get interested! Read fiction. Read advertisements in the *Saturday Evening Post.* Read biographies of others than engineers. Read detective stories if you like, but read to broaden yourself. And act!

Frank Gilbreth—one of our great Engineers—used to say that "Participation" was one of the biggest words in the language, so participate.

Take Professor Getzloe's words to heart and get interested, and act on them and participate in other activities.

Again I repeat "Don't take yourselves too seriously".

John Younger.

WHY NOT DIRECT YOUNG MEN TO AN ENGINEERING COLLEGE?

By PROFESSOR WILLIAM T. MAGRUDER

(Reprint from Power)

With the demand for engineering graduates far in excess of the supply, why do not high schools and industries send to the engineering colleges more young men who are possessed of engineering aptitude, gumption and sense, in order that the colleges may train these young men to do the work that the industries must do in order to fulfill the demands of present-day civilization?

It is estimated that the industries need forty thousand new technically trained workers each year. The engineering colleges of this country are graduating annually only about eight thousand men, or only one man for five who are needed. Of the seventy thousand degrees conferred each year in our country, only one in nine is in engineering.

The demand is such that industry finds it necessary to use many hundreds of technically trained men and engineers who are attracted to us from Europe. Industrial managers have to try to get along with men who have been trained in less practical and less rigorous branches of learning. Some industries and corporations have been forced to establish, operate and finance their own trade and technical schools in order that they shall have a more adequate supply of technically trained employees. Few corporations can afford this expenditure. Most of them have to depend upon city and Y. M. C. A. trade and night schools and on the privately endowed and state-supported engineering colleges for their supply of such men.

Because of the increasing utility of engineering products for human needs and the corresponding demands for their construction, generation and efficient use, it is evident that there should be a large demand for trained engineers. These men now come from the colleges or along the slower and more laborious routes of practical training received in the industries. Reports for the last four years show that an average of seventy business organizations have applied directly to the Department of Mechanical Engineering of The Ohio State University asking each year for the

(Continued on Page 24)

DIRECT YOUNG MEN TO AN ENGINEERING COLLEGE

(*Continued from Page* 17)

services of 145 men from the graduating class, and that the classes have averaged only 45 men in mechanical engineering. Three positions for each graduate! For the 38 men of the class of 1926, 95 companies or corporations applied, requesting the services of 174 men as that university's quota of their needs.

Up to June 1, 38 companies had sent this spring 44 representatives to interview the twenty members of the graduating class in mechanical engineering. They have each spent from one to several days interviewing students. Each visiting personnel manager or educational director seeking men has had personal interviews with from several to a dozen senior students. Some companies have had the likely students visit the plants or factories at the expense of the company, spend the day, see the place, and be interviewed by some of the executives, before they actually offered employment to the student. Every effort is apparently being made to prevent mistakes. The practice of employing from one to several hundred college graduates, training them for a year or two, and then letting half of them go, has been found to be bad and is no longer followed.

DEMAND FOR COLLEGE GRADUATES EXCEEDS SUPPLY

What is true of the Department of Mechanical Engineering is equally true of the other engineering departments of that university and of the other engineering colleges of the country, with probably few exceptions. The demand for engineering college graduates far exceeds the supply. It is not at all unusual for a promising senior to have five or more offers of permanent positions with leading engineering corporations. There are few if any alumni available for employment. They are not easily moved. Rolling stones may exist in business, but not in the engineering profession.

Men who sneer at the present-day engineering graduates and say that they have no use for them either do not know the product of the engineering college or do not know how to use such raw material. Fortunately for the young men, other people can use them and train them to advantage to become their foremen, salesmen, superintendents, research experts and executives. An increasing number of kinds of industries are beginning to recognize the potential value of, and are finding uses for, the practically trained engineering-college graduate. Few, if any, colleges are now graduating "kid-glove engineers." Several companies have been spending from fifty to one thousand dollars a year visiting each of several engineering colleges to obtain its graduates for their employ, and have been doing it for a score and more of years, and are still doing it. If they are making a mistake, why don't they find it out?

Penurious parents, politicians and pessimistic people tell us too frequently that "we are educating far too many young persons." It may be true that the states are trying to educate too many boys and girls who are not going to school or

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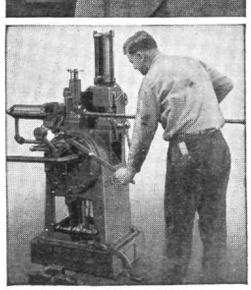

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college primarily to get an education, but only to have a good time, make contacts with other people, and for ulterior motives; but the statements is far from correct when it comes to educating young men for the engineering profession and training them for positions requiring much skill, technical knowledge and professional judgment. Industry needs and is asking each year for an increasing number of men of proper training, good judgment for their years, and with a little of that uncommon thing called "common sense," to whom it can give the special kind of training that is needed in its particular branch. Evidently, the industries should be provided with what they rightfully want and ask for and for which they are willing to pay. If an engineering college should lower its standard, the industries would find it out very quickly and seek elsewhere for the young engineers whose services they desire in order to train them for responsible and executive positions.

The kinds of young men needed for training in an engineering college out of which good engineers and executives may eventually be made are those who are absolutely honest wih themselves and their associates, who are able-bodied and not weaklings, who have a love for mathematics and logical analysis, the physical sciences and accurate English, who have a high school education or its equivalent, who have some manual skill and delight to do things with their hands, and who are either intensely studious themselves or capable of leading others.

MONEY NOT NECESSARY

Lack of money is no preventive to a boy's getting an education, who has the physical health, the mental ability and the personal ambition, and who does not have too many domestic responsibilities. All the recent engineering graduates of The Ohio State University have earned part of their college expenses, as they are now required to get into industry for at least one summer before beginning the work of their senior year. Twenty-five per cent of them are entirely self-supporting. Fifty per cent of them partly support themselves during the college year. Not a few of the older ones are married. The average age of the graduating classes in engineering is over twenty-four, and sometimes more, rather than less, as is the case in more academic studies.

Superintendents, foremen, chief draftsmen and other executives should use their influence with their young associates and suggest to them that they carefully consider the desirability of securing an engineering college education, knowing full well that seed so sown will bring forth much fruit, and by which they themselves are likely to be benefited. It is suggested that more large corporations finance scholarships at the colleges and pay part or all of the expenses of one or more young men in their employ who have shown their technical ability and have the desire for an education. Five to eight hundred dollars a year so invested in a wisely selected human machine is likely to pay good dividends in personal satisfaction and in service received. Memorial endowment funds of ten to fifteen thousand dollars in the stocks of the corporation would found such a scholarship, perpetuate a name, give a higher

(*Continued on Page* 28)

(*Continued from Page* 26)

education to a worthy young man and act as an incentive to a number of others.

As engineering is the economic utilization of the forces of Nature and of human endeavor for the benefit of mankind, the field is a large one, its paths are numerous, its growth is prodigious, its beauties are great, its rewards are ample. Blessed is the young man who has a friend who will guide him into such a field of human endeavor where he can reap happiness and health, and a comfortable and honorable living, while advancing civilization.